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January 13, 2010

Ms. Beth Walden
Remedial Project Manager
United States Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Re: Response to Comments and Revised Treatability Study Work Plan
Dewatering Sediments Using Geotubes
Operable Unit 2
Olin Chemicals/McIntosh Plant Site
McIntosh, Alabama

Dear Ms. Walden,

Olin Corporation (Olin) is herein submitting the *Revised Treatability Study Work Plan, Dewatering Sediments Using Geotubes* for Operable Unit (OU) 2 at the Olin McIntosh Plant site (site), and response to comments in both hard copy and electronic format. These submittals address comments received by Olin from the United States Environmental Protection Agency (USEPA) on December 10, 2009. As discussed in email communication between Olin and USEPA, reporting for the Dewatering Treatability Study is targeted for completion by April 30, 2010 assuming USEPA approval of the Work Plan by January 30, 2010.

Please let me know if you have any questions. I can be reached at (423) 336-4388 or via e-mail (kdroberts@olin.com).

Sincerely,

OLIN CORPORATION

A handwritten signature in black ink that reads 'Keith D. Roberts'.

Keith D. Roberts
Manger, Environmental Sites

Enclosure (electronic)

cc: S.B. Favors – ADEM
A.B. Carringer – Olin
R.A. Kennedy – Olin
T. B. Odom – Olin

S.H. Scott – ERDC - USACE
C.E. Draper - MACTEC
S. Chattopadhyay - Tetrattech
G. McDermott - Neptune



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**Response to EPA's December 10, 2009 Comments on the September 28, 2009
Treatability Study Work Plan, Dewatering Sediments Using Geotubes, Operable
Unit 2, McIntosh, Alabama**

GENERAL COMMENTS

Comment 1: Please indicate the number of replicate samples to be analyzed for the various analyses proposed in this document.

Response 1: Replicates of samples (duplicates) are listed in Table 3-1.

Comment 2: Please specify the performance evaluation parameters and criteria for the treatability tests and their impact on selection of dewatering system design.

Response 2: Evaluation parameters and the purpose of the parameters are provided in Table 3-1.

Comment 3: Table(s) containing the test matrices for various phases (surface water, sediment, filtrate, filter cake, etc.), analytical parameters (critical and non critical analytes/parameters), description of samples (e.g. types of fibers, coagulants, etc.), number of replicates, and controls should be included. A flow chart/logic diagram (or appropriate column in the above mentioned Table) is needed to describe the performance impact of these test variables. If a limited number of source materials is used for the dewatering study (source sediment/water from one or two locations from the Basin) it should be clarified that additional tests will be conducted prior to selection/design of dewatering process and equipment.

Response 3: Information has been added to Table 3-1 listing the various phases or media to be sampled and analyzed, critical parameters (there are no non-critical parameters), the analytical method, number of replicates or duplicates, and control. The purpose of the parameters in evaluation of the dewatering study is also provided in Table 3-1. Text has been added to Section 1 to address the potential need for additional studies if dredging and dewatering is included as a component of the selected remedial action.

Comment 4: The Material Safety Data Sheets (MSDs) of the selected polymers show toxicity of the chemical ingredients. Will supernatants from the polymers also be tested? It may be useful to test the supernatant for the same parameters that the geotube filtrate is being tested for, plus any other chemicals that might be in the polymers. It is preferable to use environmental friendly polymers if possible.

Response 4: The purpose of this treatability study is to provide data to evaluate and cost dewatering of dredged sediment as part of a remedial alternative to be evaluated in the FS. Refinement of polymer selection and toxicity testing may be performed in more detailed studies conducted prior to and during remedial design and implementation if dredging and dewatering is included as a component of the selected remedial action.

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Comment 5: Please ensure that the SOPs included as appendices with the report contain the originating organization's name, date of approval, and signatures of the QA and controlling authorities.

Response 5: The information requested has been added to the SOPs. The name of the QA or controlling authority is provided.

Comment 6: The cover letter states that both the bench-scale and field studies will be performed by Ciba laboratory, while the work plan only identifies Ciba as conducting the bench-scale studies. Please add information to the work plan to clarify that Ciba personnel will be conducting the field studies as well as the bench-scale studies.

Response 6: Text has been added to Section 2 indicating that the field studies will be conducted by Ciba Laboratories with assistance from MACTEC for sample collection and handling.

SPECIFIC COMMENTS

Comment 1, Page 1-1. Section 1-1. Decision Questions for Dewatering Treatability Study. Please clarify how the Treatability Study results will be utilized in the selection criteria of dredging alternatives in the Feasibility Study.

Response 1: Text has been added to Section 1.1 specifying how the data gathered from the dewatering study will be used.

Comment 2, Page 1-2. Subordinate Decision Questions for Dewatering Treatability Study. Explain how use the results of these studies will be used for cost estimations in the feasibility study. Will it be limited to chemical cost estimations only?

Response 2: Text has been added to Section 1.1 to specify what information will be used to estimate costs in the Feasibility Study.

Comment 3, Page 2-1. Section 2-1. Please confirm that moisture content (ASTM D2216) will be measured for the sediment samples.

Response 3: Moisture content will be analyzed for the sediments samples as listed in Tables 3-1 and 4-1.

Comment 4: Page 2-2. Paragraph 1. Please state whether the concentrations of polymer will be recorded and reported as they are being added to the slurry samples. Quantitative measurement of flocs and their settling rates are preferable to qualitative assessment of floc size and settling rate. If only qualitative assessments are made, how will this information be presented.

Response 4: Polymer dosage will be reported as added to the slurry samples as described in Appendix B. Settling rate and a description of the floc size will also be recorded. Text has been added to Section 2 describing these actions.

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Comment 5: Page 3-1. Geotube Field Testing. The sediment (dredged material) samples selected for the study should be analyzed for mercury (Hg) and methylmercury (MeHg). The surface water samples selected for the study should be analyzed for TDS, TSS, pH, unfiltered and filtered Hg, and unfiltered and filtered Hg.

Response 5: Methylmercury has been added to the pre and post dewatered sediment analysis as listed in Tables 3-1 and 4-1. The surface water will be used to adjust the moisture content to the targeted 10% solids to simulate dredged conditions. The pre-dewatered sediment will be analyzed for the parameters listed in Tables 3-1 and 4-1; parameters for surface water alone is not necessary since it will be included in the pre-dewatered sediment matrix.

Comment 6: Appendices. The Standard Operating Procedures (SOPs) referred in this document should be provided (Tech-SOP 1274, Tech-SOPv1417, Tech-SOP 1159, TS&D/Flocculants/PCD/1406, and others).

Response 6: The SOPs referenced have been added to the Appendices.